

WHAT IS CLAIMED IS:

1. A pharmaceutical composition comprising:
a single crystal of a pharmaceutically-acceptable crystal lattice component;
and
5 an active pharmaceutical ingredient different from and included within the crystal in a growth-sector specific orientation, the crystal lattice component and the active pharmaceutical ingredient being pharmaceutically pure.
2. A pharmaceutical material comprising:
a mixture of single crystals, each crystal comprising a pharmaceutically-
10 acceptable crystal lattice component and an active pharmaceutical ingredient different from and included within the crystal in a growth-sector specific orientation, the crystal lattice component and the active pharmaceutical ingredient being pharmaceutically pure.
3. The pharmaceutical material of claim 2 in which the crystals
15 comprise at least two crystal lattice components, the first crystal lattice component being characterized by first pharmacokinetics and the second crystal lattice component being characterized by second pharmacokinetics.
4. The pharmaceutical material of claim 2 in which said mixture comprises a mixture of two different types of said crystals, the first type of the
20 crystals comprising a first crystal lattice component and the second type of the crystals comprising at least one crystal lattice component different from the first crystal lattice component.
- Sub A1* 5. The pharmaceutical material of any of claims 2 to 4 in which the active pharmaceutical ingredient comprises discrete units and the units are
25 included within the crystals in isolation from one another.
6. The pharmaceutical material of any of claims 2 to 5 in which the active pharmaceutical ingredient is included within the crystal at a concentration of about 0.001 to 1 weight percent based on the weight of the crystal including the active pharmaceutical ingredient.
- 30 7. A method of preparing a pharmaceutical product which comprises:
including an active pharmaceutical ingredient into single crystals of a pharmaceutically-acceptable crystal lattice component, the including being

conducted under pharmaceutically-acceptable conditions to provide the active pharmaceutical ingredient in the crystals in a growth-sector specific orientation; and

harvesting the single crystals.

5 8. The method of claim 7 and which further includes dissolving the harvested crystals into a pharmaceutically-acceptable diluent to form a solution containing the pharmaceutical free of the crystals.

9. A method of stabilizing an active pharmaceutical ingredient which comprises including the active pharmaceutical ingredient into single crystals of a
10 pharmaceutically-acceptable crystal lattice component, the including being conducted under pharmaceutically-acceptable conditions to provide the active pharmaceutical ingredient in the crystals in a growth-sector specific orientation, the active pharmaceutical ingredient comprising discrete units and the units being included in the crystals in isolation from one another.

15 10. A method of administering an active pharmaceutical ingredient which comprises administering to a patient a pharmaceutical composition comprising single crystals of a pharmaceutically-acceptable crystal lattice component and an active pharmaceutical ingredient different from and included within the crystal lattice component in a growth-sector specific orientation, the
20 crystal lattice component and the active pharmaceutical ingredient being pharmaceutically pure.

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Q2* → 11. The invention of any of claims 1 to 10 in which, for each crystal, the active pharmaceutical ingredient is included within the crystal in a growth-sector specific orientation.

25 12. The invention of any of claims 1 to 11 and further comprising a pharmaceutically-acceptable adjuvant selected from the group consisting of excipients, diluents, carriers and mixtures thereof.

13. The invention of any of claims 1 to 12 in which the active pharmaceutical ingredient is a biopharmaceutical.

30 14. The invention of any of claims 1 to 13 in which the crystal lattice component is selected from the group consisting of: sucrose, lactose, trehalose, maltose, galactose, sorbose, mannitol, lactitol, sorbitol, glycine, alanine, lysine,

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arginine, ascorbic acid, nicotinamide, thiamine, adenine, pyridoxine hydrochloride, caffeic acid, vanillic acid, ferulic acid, benzoate, sorbate, methyl paraben, sodium ascorbate, sodium saccharin, potassium citrate, zinc, calcium, and any derivatives, salt forms, or mixtures thereof.

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